Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Please amend claims 1 and 23 as follows, without prejudice.
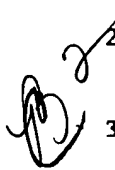
1   1.   (Currently Amended) A method comprising:

2   one or more computer systems generating return scenarios for each asset class of a

3   plurality of asset classes based upon future scenarios of one or more economic

4   factors;

5   the one or more computer systems creating a mapping from each financial product of an

6   available set of financial products onto one or more asset classes of the plurality

7   of asset classes by determining exposures of the available set of financial products

8   to each asset class of the plurality of asset classes;

9   the one or more computer systems determining expected returns and volatility of returns

10   for each of a plurality of portfolios on the efficient frontier based upon the

11   mapping, each of the plurality of portfolios including combinations of financial

12   products from the available set of financial products; and

13   the one or more computer systems identifying a recommended portfolio of the plurality

14   of efficient portfolios that maximizes an expected utility of wealth for a particular

15   investor.

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1 2. (Previously Presented) The method of claim 1, wherein the expected returns and the

2 volatility of returns for each of the plurality of portfolios on the efficient frontier are

3 determined analytically.

1 3. (Previously Presented) The method of claim 1, wherein the expected returns and the

2 volatility of returns for each of the plurality of portfolios on the efficient frontier are

3 determined based upon a simulation process.

1 4. (Previously Presented) The method of claim 1, wherein the particular investor's utility

2 function comprises a mean-variance utility function.

1 5. (Previously Presented) The method of claim 1, wherein said identifying a recommended

2 portfolio assumes a constant-mix strategy.

1 6. (Previously Presented) The method of claim 1, wherein said identifying a recommended

2 portfolio assumes a buy-and-hold strategy.

1 7. (Previously Presented) The method of claim 1, wherein the available set of financial

2 products represents a set of financial products offered through an employee-directed

3 defined contribution plan.

1 8. (Previously Presented) The method of claim 7, wherein the available set of financial

2 products comprises one or more of bonds, stocks, and mutual funds.

1 9. (Previously Presented) The method of claim 1, wherein said generating return scenarios

2 for each asset class of a plurality of asset classes employs a model that incorporates a

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3   stochastic process that limits the prices on the assets and payoffs in such a way that no

4   arbitrage is possible.

1   10.   (Previously Presented) The method of claim 1, wherein the plurality of asset classes

2   includes a core set of asset classes and a set of factor asset classes, and wherein the

3   method further includes conditioning the factor asset classes upon the core asset classes.

1   11.   (Previously Presented) The method of claim 10, wherein said conditioning the factor

2   asset classes upon the core asset classes employs the following equation:

3
$$r_{it} = \alpha_i + \beta_{1i} ST\_Bonds_t + \beta_{2i} LT\_Bonds_t + \beta_{3i} US\_Stocks_t + \varepsilon_i$$

4   where,

5   r_{it} represents the return for a factor, i, at time t,

6   β_{ji} represents the sensitivity of the factor i to core asset class j,

7   ST_Bonds_t represents the returns estimated for short-term US government bonds at time

8   t,

9   LT_Bonds_t represents the returns estimated for long-term US government bonds at time

10   t.,

11   US_Stocks_t represents the returns estimated for US stocks at time t,

12   α_i is a constant representing the average returns of factor asset class i relative to core

13   asset class exposures, and

14   ε_i is a residual random variable.

1   12.   (Previously Presented) The method of claim 11, further including imposing

2   macroconsistency upon the factor asset class returns by estimating α_i relative to a known

3   efficient portfolio.

4   13.   (Previously Presented) The method of claim 12, wherein said imposing

5   macroconsistency upon the factor asset class returns includes calibrating α_i to be

6   consistent with observed market weightings of the factor asset classes associated with the

7   Market Portfolio.

1   14.   (Previously Presented) A method comprising the steps of:

2   a pricing kernel step for generating return scenarios for each asset class of a plurality of

3   asset classes based upon future scenarios of one or more economic factors;

4   a returns-based style analysis step for creating a mapping from each financial product of

5   an available set of financial products onto one or more asset classes of the

6   plurality of asset classes by determining exposures of the available set of financial

7   products to each asset class of the plurality of asset classes;

8   a step for determining expected returns and volatility of returns for each of a plurality of

9   portfolios on the efficient frontier based upon the mapping, each of the plurality

10   of portfolios including combinations of financial products from the available set

11   of financial products; and

12   a recommendation step for identifying a recommended portfolio of the plurality of

13   efficient portfolios that maximizes an expected utility of wealth for a particular

14   investor.

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1 15. (Previously Presented) The method of claim 14, wherein the expected returns and the

2 volatility of returns for each of the plurality of portfolios on the efficient frontier are

3 determined analytically.

1 16. (Previously Presented) The method of claim 14, wherein the expected returns and the

2 volatility of returns for each of the plurality of portfolios on the efficient frontier are

3 determined based upon a simulation process.

1 17. (Previously Presented) The method of claim 14, wherein the particular investor's utility

2 function comprises a mean-variance utility function.

1 18. (Previously Presented) The method of claim 14, wherein said recommendation step

2 assumes a constant-mix strategy.

1 19. (Previously Presented) The method of claim 14, wherein said recommendation step

2 assumes a buy-and-hold strategy.

1 20. (Previously Presented) The method of claim 14, wherein the available set of financial

2 products represents a set of financial products offered through an employee-directed

3 defined contribution plan.

1 21. (Previously Presented) The method of claim 20, wherein the available set of financial

2 products comprises one or more of bonds, stocks, and mutual funds.

1 22. (Previously Presented) The method of claim 14, wherein said pricing kernel step

2 employs a model that incorporates a stochastic process that limits the prices on the assets

3 and payoffs in such a way that no arbitrage is possible.

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1   23.   (Currently Amended) A method comprising:

2   one or more computer systems estimating returns for each financial product of an

3   available set of financial products based upon the financial product's sensitivity to

4   movements of a plurality of predetermined economic factors by utilizing a factor

5   model;

6   the one or more computer systems determining expected returns and volatility of returns

7   for each of a plurality of portfolios on the efficient frontier for the available set of

8   financial products, the plurality of portfolios each including one or more financial

9   products of the available set of financial products; and

10   the one or more computer systems identifying a recommended portfolio of the plurality

11   of portfolios that maximizes a particular investor's utility function at a

12   predetermined time horizon taking into consideration the timing and amount of

13   expected contributions and expected withdrawals, if any.

1   24.   (Previously Presented) The method of claim 23, wherein the expected returns and the

2   volatility of returns for each of the plurality of portfolios on the efficient frontier are

3   determined analytically.

1   25.   (Previously Presented) The method of claim 23, wherein the expected returns and the

2   volatility of returns for each of the plurality of portfolios on the efficient frontier are

3   determined based upon a simulation process.

1   26.   (Previously Presented) The method of claim 23, wherein the utility function comprises a

2   mean-variance utility function.

1 27. (Previously Presented) The method of claim 23, wherein said identifying a
2 recommended portfolio assumes a constant-mix strategy.

1 28. (Previously Presented) The method of claim 23, wherein said identifying a
2 recommended portfolio assumes a buy-and-hold strategy.

1 29. (Previously Presented) The method of claim 23, wherein the available set of financial
2 products represents a set of financial products offered through an employee-directed
3 defined contribution plan.

1 30. (Previously Presented) The method of claim 29, wherein the available set of financial
2 products comprises one or more of bonds, stocks, and mutual funds.

1 31. (Previously Presented) A financial advisory system comprising:
2 a forecasting means for generating return scenarios for each asset class of a plurality of
3 asset classes based upon future scenarios of one or more economic factors;
4 a fund decomposition means, communicatively coupled to the forecasting means, for
5 creating a mapping from each financial product of an available set of financial
6 products onto one or more asset classes of the plurality of asset classes by
7 determining exposures of the available set of financial products to each asset class
8 of the plurality of asset classes;
9 a means, communicatively coupled to both the forecasting means and the fund
10 decomposition means, for determining expected returns and volatility of returns
11 for each of a plurality of portfolios on the efficient frontier based upon the

12   mapping, each of the plurality of portfolios including combinations of financial

13   products from the available set of financial products; and

14 a portfolio optimization means for identifying a recommended portfolio of the plurality of

15   efficient portfolios that maximizes an expected utility of wealth for a particular

16   investor based on the expected returns and the volatility of returns.

1   32.   (Previously Presented) A computer system comprising:

2   a storage device having stored therein a portfolio optimization routine to determine

3   portfolio return scenarios for one or more portfolios including combinations of

4   financial products from an available set of financial products and identify a

5   recommended portfolio;

6   a processor coupled to the storage device to execute the portfolio optimization routine to

7   generate asset class return scenarios, a mapping, portfolio return scenarios, and

8   identify the recommended portfolio, where:

9   the asset class return scenarios are generated for each asset class of a plurality of

10   asset classes based upon future scenarios of one or more economic factors;

11   the mapping associates each financial product of the available set of financial

12   products with one or more asset classes of the plurality of asset classes, the

13   mapping is generated by determining exposures of the available set of

14   financial products to each asset class of the plurality of asset classes;

15   the portfolio return scenarios are generated by determining expected returns and

16   volatility of returns for each of a plurality of portfolios on the efficient

17   frontier based upon the mapping, each of the plurality of portfolios

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18 including combinations of financial products from the available set of

19 financial products; and

20 the recommended portfolio is identified by determining a portfolio of the plurality

21 of efficient portfolios that maximizes an expected utility of wealth for a

22 particular investor.

1 33. (Previously Presented) A machine-readable medium having stored thereon data

2 representing sequences of instructions, said sequences of instructions which, when

3 executed by a processor, cause said processor to:

4 estimate returns for each financial product of an available set of financial products based

5 upon the financial product's sensitivity to movements of a plurality of

6 predetermined economic factors by utilizing a factor model;

7 determine expected returns and volatility of returns for each of a plurality of portfolios on

8 the efficient frontier for the available set of financial products, the plurality of

9 portfolios each including one or more financial products of the available set of

10 financial products; and

11 identify a recommended portfolio of the plurality of portfolios that maximizes a

12 particular investor's utility function at a predetermined time horizon

13 taking into consideration the timing and amount of expected contributions

14 and expected withdrawals, if any.

Claims 34-57 (canceled).

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